

CLAIMS

1. A method of modeling a business process to facilitate an evaluation of driving metrics for a selected goal metric, the method comprising:

gathering data to define a plurality of interrelated metrics associated with the business process;

creating a plurality of models based on the data, each of the plurality of models corresponding to one of the plurality of interrelated metrics;

optimizing the plurality of models to minimize the difference between an estimated value and a goal value for the selected goal metric; and

combining results of the optimizing to produce a summary which describes a hierarchy of selected driving metrics for the selected goal metric.

2. The method of claim 1 wherein the optimizing further comprises performing a non-linear optimization for each of the plurality of models to adjust the primary coefficients and exponents.

3. The method of claim 2 wherein the combining of the results of the optimizing further comprises running a back-substitution routine to define the selected goal metric in terms of the substantially smallest to the substantially largest of the selected driving metrics.

4. The method of claim 1 wherein the optimizing further comprises setting values for at least some of the interrelated metrics to associated lag target values so that the summary reflects time lag effects.

5. The method of claim 2 wherein the optimizing further comprises setting values for at least some of the interrelated metrics to associated lag target values so that the summary reflects time lag effects.

6. The method of claim 1 wherein the creating of the plurality of models further comprises:

setting a correlation coefficient starting value to limit the number of selected driving metrics to a preselected maximum number; and

omitting from the creating of the plurality of models the interrelated metrics having a correlation coefficient that is less than a preselected starting value.

7. The method of claim 2 wherein the creating of the plurality of models further comprises:

setting a correlation coefficient starting value to limit the number of selected driving metrics to a preselected maximum number; and

omitting from the creating of the plurality of models the interrelated metrics having a correlation coefficient that is less than a preselected starting value.

8. The method of claim 4 wherein the creating of the plurality of models further comprises:

setting a correlation coefficient starting value to limit the number of selected driving metrics to a preselected maximum number; and

omitting from the creating of the plurality of models the interrelated metrics having a correlation coefficient that is less than a preselected starting value.

9. The method of claim 1 wherein the creating of the plurality of models further comprises setting at least some of the interrelated metrics corresponding to the plurality of models to a constant value to represent a metric that substantially cannot be controlled within the business process.

10. The method of claim 2 wherein the creating of the plurality of models further comprises setting at least some of the interrelated metrics corresponding to the plurality of models to a constant value to represent a metric that substantially cannot be controlled within the business process.

11. The method of claim 4 wherein the creating of the plurality of models further comprises setting at least some of the interrelated metrics corresponding to the plurality of models to a constant value to represent a metric that substantially cannot be controlled within the business process.

12. The method of claim 6 wherein the creating of the plurality of models further comprises setting at least some of the interrelated metrics corresponding to the plurality of models to a constant value to represent a metric that substantially cannot be controlled within the business process.

13. A computer program product comprising a computer program for modeling a business process to facilitate an evaluation of driving metrics for a selected goal metric, the computer program further comprising:

instructions for gathering data to define a plurality of interrelated metrics associated with the business process;

instructions for creating a plurality of models based on the data, each of the plurality of models corresponding to one of the plurality of interrelated metrics;

instructions for optimizing the plurality of models to minimize the difference between an estimated value and a goal value for the selected goal metric; and

instructions for combining results of the optimizing produce a summary which describes a hierarchy of selected driving metrics for the selected goal metric.

14. The computer program product of claim 13 wherein the instructions for optimizing further comprise instructions for performing a non-linear optimization for each of the plurality of models to adjust the primary coefficients and exponents.

15. The computer program product of claim 14 wherein the instructions for combining results of the non-linear optimization further comprise instructions for running a back-substitution routine to define the selected goal metric in terms of the substantially smallest to the substantially largest of the selected driving metrics.

16. The computer program product of claim 13 wherein the instructions for optimizing further comprise instructions for setting values for at least some of the interrelated metrics corresponding to the plurality of models to associated lag target values so that the summary reflects time lag effects.

17. The computer program product of claim 14 wherein the instructions for optimizing further comprise instructions for setting values for at least some of the interrelated metrics corresponding to the plurality of models to associated lag target values so that the summary reflects time lag effects.

18. The computer program product of claim 13 wherein the instructions for creating a plurality of models further comprise:

instructions for setting a correlation coefficient starting value to limit the number of selected driving metrics to a preselected maximum number; and

instructions for omitting from the creating of the plurality of models the interrelated metrics having a correlation coefficient that is less than a preselected starting value.

19. The computer program product of claim 14 wherein the instructions for creating a plurality of models further comprise:

instructions for setting a correlation coefficient starting value to limit the number of selected driving metrics to a preselected maximum number; and

instructions for omitting from the creating of the plurality of models the interrelated metrics having a correlation coefficient that is less than a preselected starting value.

20. The computer program product of claim 16 wherein the instructions for creating a plurality of models further comprise:

instructions for setting a correlation coefficient starting value to limit the number of selected driving metrics to a preselected maximum number; and

instructions for omitting from the creating of the plurality of models the interrelated metrics having a correlation coefficient that is less than a preselected starting value.

21. The computer program product of claim 13 wherein the instructions for creating of the plurality of models further comprise instructions for setting at least some of the interrelated metrics corresponding to the plurality of models to a constant

value to represent a metric that substantially cannot be controlled within the business process.

22. The computer program product of claim 14 wherein the instructions for creating of the plurality of models further comprise instructions for setting at least some of the interrelated metrics corresponding to the plurality of models to a constant value to represent a metric that substantially cannot be controlled within the business process.

23. The computer program product of claim 16 wherein the instructions for creating of the plurality of models further comprise instructions for setting at least some of the interrelated metrics corresponding to the plurality of models to a constant value to represent a metric that substantially cannot be controlled within the business process.

24. The computer program product of claim 18 wherein the instructions for creating of the plurality of models further comprise instructions for setting at least some of the interrelated metrics corresponding to the plurality of models to a constant value to represent a metric that substantially cannot be controlled within the business process.

25. Apparatus to facilitate an evaluation of driving metrics for a selected goal metric, the apparatus comprising:

means for gathering data to define a plurality of interrelated metrics associated with the business process;

means for creating a plurality of models based on the data, each of the plurality of models corresponding to one of the plurality of interrelated metrics;

means for optimizing the plurality of models to minimize the difference between an estimated value and a goal value for the selected goal metric; and

means for combining results of the optimizing to produce a summary which describes a hierarchy of selected driving metrics for the selected goal metric.

26. The apparatus of claim 25 wherein the means for gathering data further comprises a user input screen operable to receive as input, parameters for controlling the manner in which some of the plurality of interrelated metrics are reflected in the summary.

27. The apparatus of claim 26 wherein the input screen is further operable to receive as input, a list of the interrelated metrics and their average values.

28. The apparatus of claim 25 wherein the means for gathering data further comprises a connection to a data warehouse.

29. The apparatus of claim 26 wherein the means for gathering data further comprises a connection to a data warehouse.

30. A system operable to model a business process to facilitate an evaluation of driving metrics for a selected goal metric, the system comprising:

a user input screen operable to receive as input, parameters for controlling the manner in which some of a plurality of interrelated metrics are reflected in a summary describing a hierarchy of selected driving metrics for the selected goal metric; and

a processing platform operable to create a plurality of models, at least in part using the parameters received through the user input screen, the plurality of models corresponding to at least some of the plurality of interrelated metrics, the processing platform further operable to optimize the plurality of models based on the data pertaining to the interrelated metrics, including the parameters, and to combine results from the plurality of models to produce the summary.

31. The system of claim 30 further comprising a connection to a data warehouse operable to receive the data pertaining to the interrelated metrics for use by the processing platform.

32. The system of claim 30 wherein the parameters further comprise time lag information.

33. The system of claim 30 wherein the parameters further comprise indications of the controllability of at least some metrics.

34. The system of claim 30 wherein the parameters further comprise a maximum number of metrics to be included in the selected driving metrics and wherein the processing platform makes use of a correlation coefficient to limit the selected driving metrics to the maximum number.

35. The system of claim 31 wherein the parameters further comprise a maximum number of metrics to be included in the selected driving metrics and wherein the processing platform makes use of a correlation coefficient to limit the selected driving metrics to the maximum number.

36. The system of claim 32 wherein the parameters further comprise a maximum number of metrics to be included in the selected driving metrics and wherein the processing platform makes use of a correlation coefficient to limit the selected driving metrics to the maximum number.

37. The system of claim 33 wherein the parameters further comprise a maximum number of metrics to be included in the selected driving metrics and wherein the processing platform makes use of a correlation coefficient to limit the selected driving metrics to the maximum number.

38. The system of claim 30 wherein the processing platform is operable to optimize the plurality of models by performing a non-linear optimization to meet at least one goal.

39. The system of claim 31 wherein the processing platform is operable to optimize the plurality of models by performing a non-linear optimization to meet at least one goal.

40. The system of claim 33 wherein the processing platform is operable to optimize the plurality of models by performing a non-linear optimization; and
wherein the indication of a substantial lack of controllability of a metric causes a constant value for the metric to be used.